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THIS WEEK'S NEWS

A NEW IMPRESSION of the Model By-laws has now been issued to local authorities who are reminded that their drafts for new local by-laws should be submitted to the Ministry of Housing and Local Government within the next month. p. 273

THE Central African Rhodes Centenary Exhibition is described and illustrated on p. 274

SOME DETAILS of recent legislation of particular interest to architects and builders are given by a legal correspondent p. 294

SAVINGS are claimed of up to 21s. a ton of cement under normal conditions through the use of equipment for the delivery of cement in bulk now available for the smaller contract. p. 295

ALL WATER HEATERS are to be exempted from the provisions of the Hire Purchase (Control) Order from August 21. p. 300

AN IRRESPONSIBLE CHARGE

IN our issue of August 7, we included an extract from a speech by the Parliamentary Secretary to the Ministry of Housing and Local Government, and a letter of comment which appeared in *The Observer*, from the President of the RIBA. The subject dealt with is so important to the public as well as to the architectural profession that we feel we must give it still greater prominence lest the brevity of the report suggests something less than its real significance. We would say at once that rarely has a highly placed public figure made a more unjust charge, or a more irresponsible one, than that which Mr. Marples committed to public utterance at Ampthill on July 25.

Every Minister who has had charge of the housing programme since the war has had an embarrassing offspring to rear, and he has been short of everything but advice, of which there has been continual clamour and to which none but the strongest of characters could lend a deaf ear. But hard facts have always had to rule the programme and, though the cost to the country has been a staggering one, it has been by no means a failure; it stands comparison with the efforts of any other country, most of them far less stricken by war. Memories soon fade, and it would seem that some have already forgotten the crash of masonry and the crackling of flames which declared the rapid destruction of many million pounds worth of costly building. Such destruction of wealth can be made good only by the expenditure of much treasure, and it is this proud though painful task which we have been fulfilling throughout the past seven years.

British houses have never been gimcrack, and our high standards have made the task all the more difficult, though those to come will be thankful to us that we built solidly and not just for the moment. The cost has been indeed high, and probably higher than it should have been if all had played their part, but it is certainly not the architect who is to blame for the hard facts of our economy. Let us review the part that he has played in this most important feature of the post-war problem.

He began his task under official direction when labour and materials were scarce, and he found himself with far too many houses half-way towards completion but with little prospect of their being finished off in any reasonable time. To complicate his problem, his plumbers and carpenters were called off to contribute to the finishing of the temporary prefabricated houses which were going up in tens of thousands. These circumstances were entirely outside his control, and it was these circumstances which established a habit of slow tempo on the jobs, aggravated by the lack of form of the returning craftsmen. So far the architect had played his part to the full; he had studied the problem of the cottage, and had developed plans which produced the simple pitched roof forms which have always been typical of the workers' cottages in all the best periods of English architecture. As a result the early housing schemes attained the highest standard of design that we have seen for over 30 years. Yet Mr. Marples declares that "aesthetically, they [architects] have not been bold or convincing." What on earth does he mean? Has he really been around the country to see, or has he not been able to recognise architectural quality when he has seen it?

But let us pass on to the next phase, when the Ministry resolved to reinforce the output of houses built on traditional lines by certain types of permanent prefabricated dwellings. Size for size, and almost without exception they proved considerably more expensive than the traditional houses, though they may have been worth while at that particular stage of the programme. Again the traditional scheme had to suffer the inroads into their balanced teams of plasterers, plumbers and joiners, and again the disturbance on the job meant still further disheartening among the labour force already working from hand to mouth. It was not the architects who urged this programme, though they did their best to administer it. Yet Mr. Marples says: "They must reorientate their outlook and design for a country which is no longer rich." What does he suggest they should do in practical terms? They have already built more cheaply than by engineering and industrial methods. Practically all they can do now is to leave out the baths, the hot water systems and the electric light. Is this what Mr. Marples advocates?

Now we are in yet another phase, precipitated by the policy of the present Government, and wisely so, we feel. We have long advocated an early easement and ultimate lifting of the burden of control and unreal planning, and the present Government made a start upon this course. The immediate result has been a certain measure of confusion, because the supply field, for so long constricted by a meagre ration, is not yet in shape to meet a free market of demand

We have no doubt that the balance will be restored by the natural laws of a free economy if interference is not reimposed.

The truth is, of course, that it is no more easy to build a substantial house at approaching pre-war cost than it is to construct a jet fighter for the price of a Spitfire, or a Comet for that of a pre-war air-liner. But still more is it obvious that the power to put a brake upon rising building costs is to a large extent in the hands of the Government, and that every government since the War has shirked the problems which are within their power to solve. Legislation alone can restore the balance between old and new building values which has been destroyed by chaotic laws in rent restriction, and an antiquated rating system. Only legislation can create the incentives to extra effort which rigid rules of taxation stifle. Only a Chancellor can really release the money which industry so much needs so as to be in a position to produce the steady flow of supplies with which the building industry has not been served throughout its tough post-war programme.

Let the legislators take these matters seriously to heart before they step out of their compass into the technical field.

HIGH BUILDINGS AND ST. PAUL'S

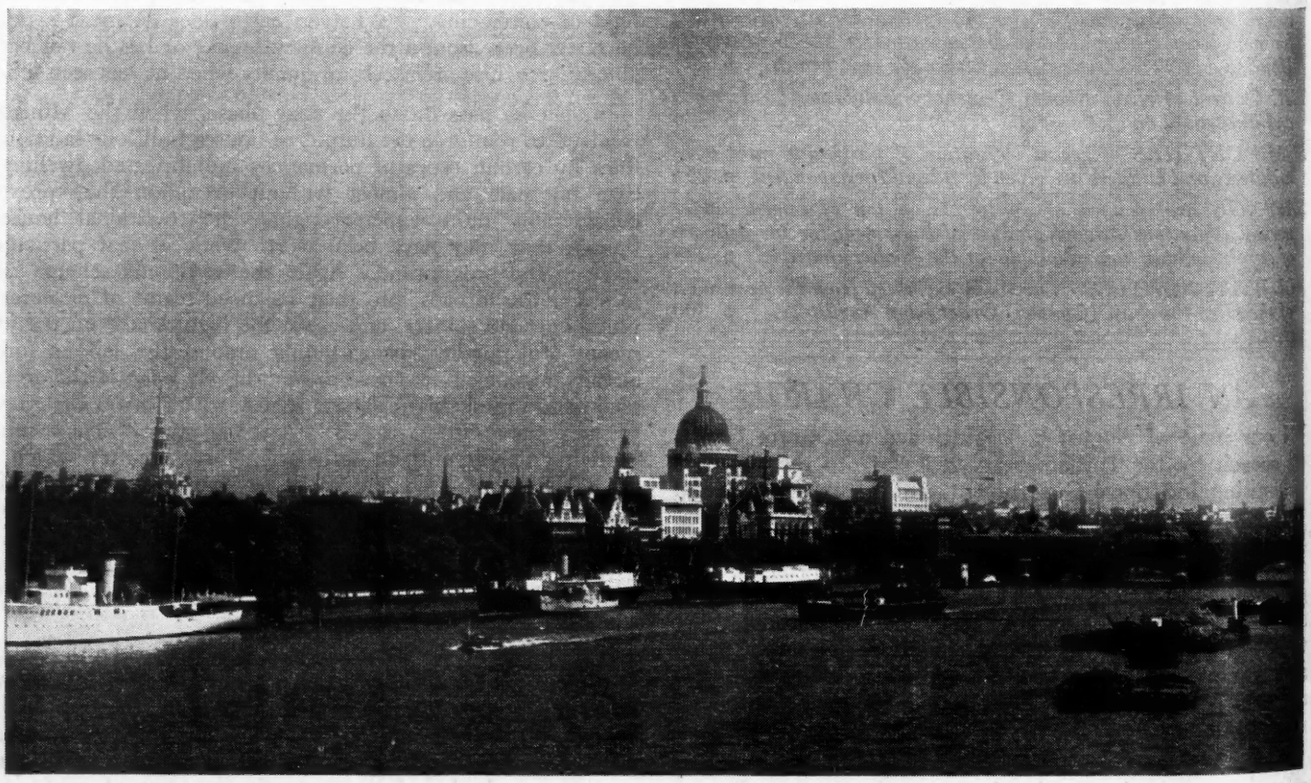
THE Bucklersbury House project has brought to a climax the controversy about the lines to be followed in the redevelopment of the City, particularly with regard to higher buildings and their relation to and effect on St. Paul's. Briefly, it is proposed to erect on a site west of Wallbrook about a quarter of a mile east of the Cathedral a building planned on the " open " principle rising to a total height of 170 ft. The LCC is unanimously in favour of the scheme while the City Corporation has approved it by a substantial majority. The Royal Fine Art Commission, to whose judgment it was submitted, has described it* as " a project of capital importance which must to some extent set a precedent for further reconstruction in the City. The Commission pressed for a substantial reduction in the proposed volume of this building, but was over-ruled by the Planning Authorities and was obliged, therefore, to confine its efforts to the mitigation of the overwhelming effect which such a building is bound to have on its surroundings. After protracted discussion, and as a result of close and sympathetic co-operation of the architects, substantial improvements were achieved. The Commission, however, cannot approve the decision to allow what it considers to be over-development to proceed in City sites of this kind."

The matter was raised recently in both Houses of Parliament, and the position at the moment is that Mr. Macmillan, the Minister of Housing and Local Government, while pointing out that decision on the plans of new buildings is in general a matter for the local planning authority and that an appeal to him is permissible only if approval has been withheld, has nevertheless taken steps to get in touch with the City Corporation and the LCC on the matter. With the project in, as it were, a state of suspended animation, some of the arguments that have been brought against it may be usefully reconsidered.

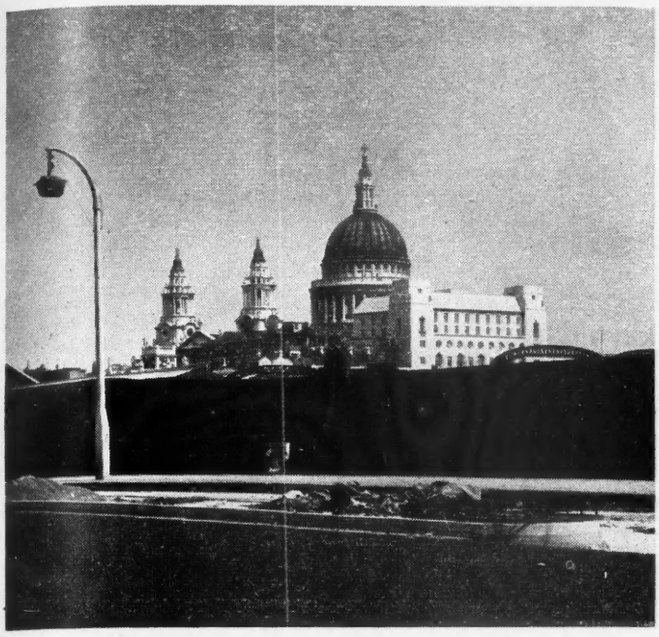
The scheme is chiefly objected to because of its abnormal height and bulk and what is held to be an excessive density of development. It has been argued (*a*) that the building will change the London skyline detrimentally, both from distant and near views; (*b*) that it will conflict with St. Paul's, and (*c*) that the high density will aggravate the already serious traffic problem. It is by no means certain that these arguments are valid. The effect on the skyline from a distance—say, from the Northern Heights or eminences in Kent and Surrey—need not be too seriously pondered. London already has some notably high buildings, and, in any case, a height of 170 ft. is less than half that of the 366 ft. of St. Paul's. Clearly, if Bucklersbury House were to be built to the intended height, St. Paul's would still dominate the skyline.

Then as to near views of the cathedral. The best views—those from Waterloo and Blackfriars bridges—are already spoiled, the former by Unilever House which, owing to the

* Annual Report. HMSO 6d. (see *The Builder*, August 14)

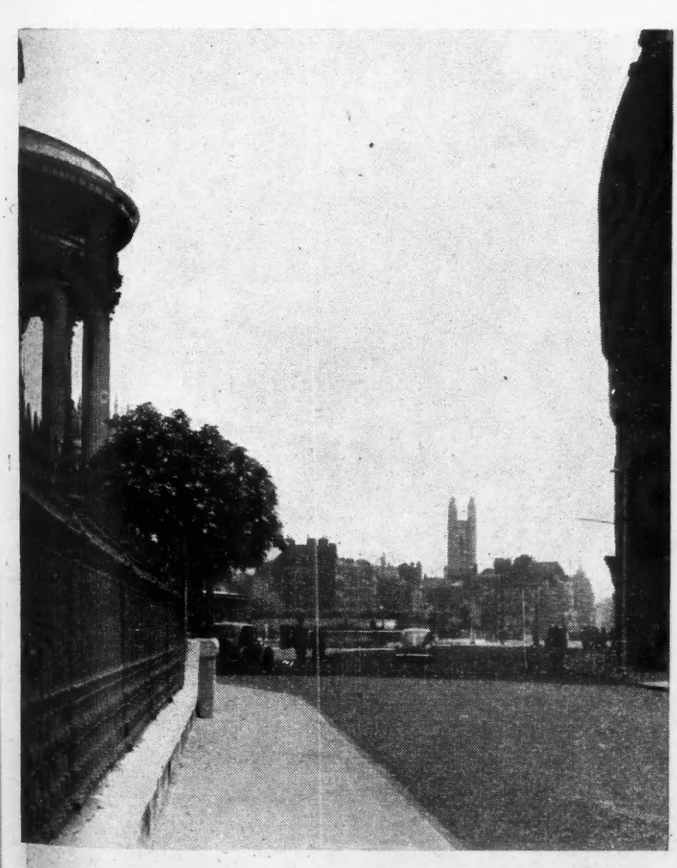


View showing how the back elevations of Unilever House spoil the view of St. Paul's from Waterloo Bridge. The tall building to the right is Faraday House.



View showing how the Faraday House building spoils the view of St. Paul's from Blackfriars Bridge.

curve of the Embankment into New Bridge-street, presents to the onlooker its unsightly back elevations which effectively block out the Cathedral except for the dome and parts of the peristyle and the western towers; while the view from Blackfriars Bridge is spoiled by the Faraday House building (a Government structure this, be it noted), which obscures more than half the peristyle up to the level of the Stone Gallery.



View from St. Paul's Churchyard, looking east down Cannon-street towards the site of Bucklersbury House, which is well beyond the tower of St. Mary Aldermary in middle distance. When bombed sites in Cannon-street and Queen Victoria-street are rebuilt little, if anything, is likely to be visible of Bucklersbury House.

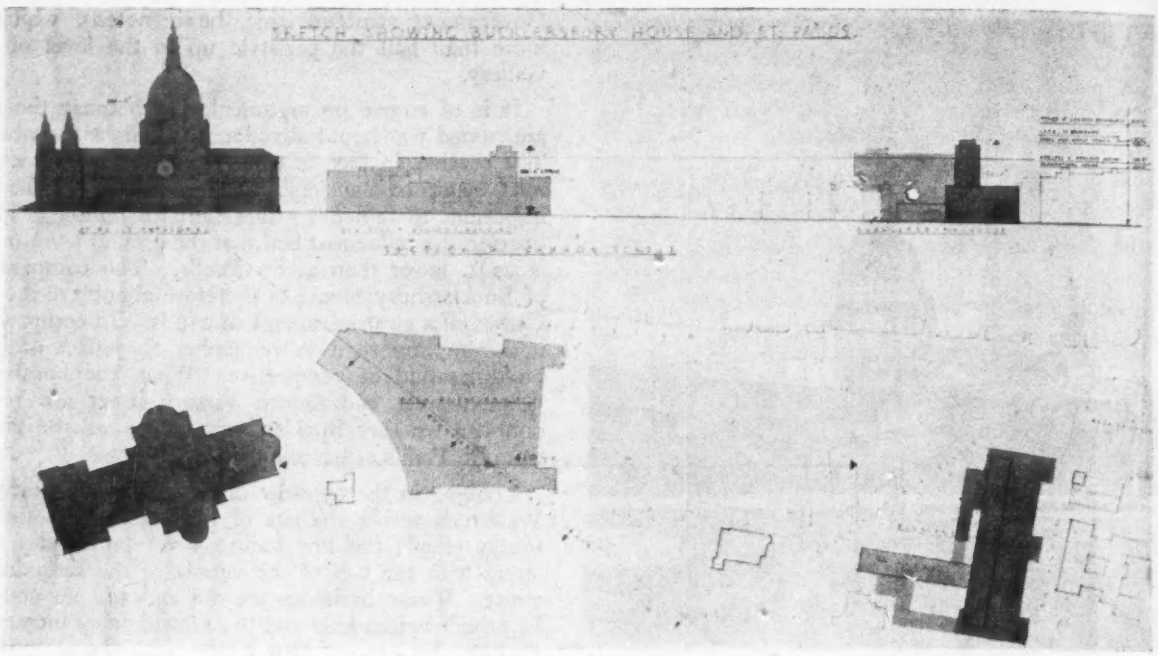
It is of course no argument that because the best views are ruined we should abandon all thought for what remains. The reverse, in fact, is true. Let us therefore consider the relationship of Bucklersbury House to the Cathedral. It is important to remember that the two buildings are about a quarter of a mile apart and that the ground level at Wallbrook is 20 ft. lower than at St. Paul's. The comparable height of Bucklersbury House is therefore about 150 ft., giving the Cathedral a clear advantage of 216 ft. In comparing heights it is also important to remember the effect of intervening buildings and of perspective. When the bombed sites in Cannon-street and Queen Victoria-street are rebuilt it is doubtful whether Bucklersbury House will be visible at all from St. Paul's at pavement level.

Looking in the opposite direction, that is westwards from Wallbrook across the site of Bucklersbury House, one sees to-day chiefly the low buildings on both sides of Queen-street with the top of the cupola of the cathedral showing above. These buildings are old and will no doubt have to be rebuilt before long and to a considerably increased height. In fact, this process now begins with the seven-storey new building for the Bank of London and South America, on the site at the corner of Queen-street and Queen Victoria-street, details of which have been made public this week. As a result, very little of St. Paul's, if anything, is likely to be visible from Bucklersbury House at ground level. All the points we have made are confirmed by photographs now reproduced. Even as things are at present, nothing can be seen of St. Paul's from the western end of the site.

With regard to the general question of City rebuilding, the large spaces left by the bombing offer splendid opportunities for improved redevelopment. Hence the abandonment by the promoters of Bucklersbury House of the conventional building line, involving internal light wells, and the adoption of open planning giving better access, more economic development and greatly improved light and air. In view, however, of the large part of a site that must remain unbuilt on with this form of development, some increase of height is inevitable if a scheme is to be a paying proposition. That height will vary with circumstances; we hold no brief for Bucklersbury House—it may be too high. Unless we are to revert to the old form of development we must reconcile ourselves to higher buildings. In some cases, particularly where a site remains in multiple ownership, the old form will probably survive, but that it should be avoided wherever possible is clear from the fact that many such buildings not only contain far too high a proportion of space that is badly lighted but also diminish the daylight reaching neighbouring buildings. In the three or four years before the war as much as 40 per cent. of such accommodation remained unlet. In the case of Bucklersbury House it is understood that the density of the site will be no greater than it was before the war.

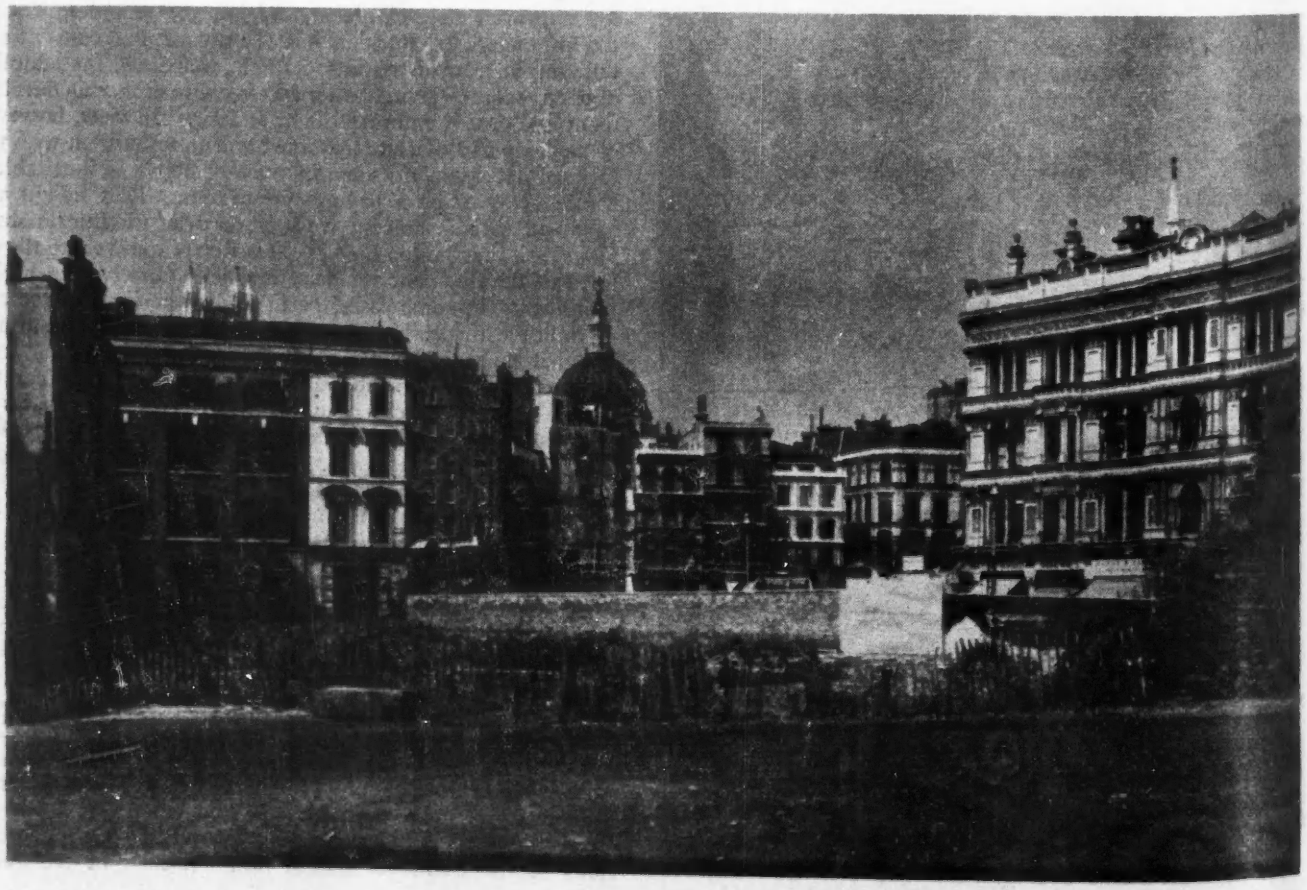
No sensible person wants London to become a city of skyscrapers, dominating and blotting out St. Paul's, nor, we imagine, will it ever be that. Even with a number of new high buildings like Bucklersbury House, St. Paul's would still, as it should, " above the City ride " and dominate the skyline. That high buildings of the " spine-and-wing " type, judiciously designed and sited, can enhance the appearance of the London scene and skyline is shown by such buildings as Dr. Holden's London Transport House at St. James's Park and, a much earlier example, Alfred Waterhouse's University College Hospital, Gower-street. Commanding views of the Cathedral should not, however, be interfered with.

In any case, the City of London cannot afford to become an architectural museum-piece. If it is to hold its place as a



Comparison of height of Bucklersbury House and the proposed Bank of England offices with St. Paul's.

world centre of commerce it must keep pace with technical advances in building design and town planning. Before condemning projects like Bucklersbury House out of hand the critics should take account of such facts as are here put forward. If they consider these fairly they may perhaps find cause to modify their views. If they are still "out for blood," let them redirect their attention to the proposed Bank of England building which, abutting on St. Paul's to the east, may be considered to be a far greater menace to the setting of the Cathedral.



View from Wallbrook looking west across site of Bucklersbury House. The buildings in the middle distance are on the west side of Queen-street. From the western end of the site even now nothing can be seen of St. Paul's at ground level. The gap to the left of the 4-storey building to the right of the photograph will be filled by the proposed 7-storey Bank of London and South America.

NOTES & NEWS

REPAIR OF OLD BUILDINGS

THE Society for the Protection of Ancient Buildings is frequently asked whether facilities are available for architects responsible for old buildings to obtain knowledge of the Society's principles and methods of repair. To meet this demand the Society is again arranging a week's course consisting of lectures, discussions and visits to cover the many important aspects of repair work.

It is apparent, with so much overdue repair waiting to be done to churches and old houses, that there will be no lack of work of this character for many years. It is therefore essential that more architects should possess an acquaintance not only with the constructional methods of the past, but with the principles underlying the sympathetic and conservative treatment of old buildings. It is also hoped that it will be found possible for local authorities and others to give facilities to the architect members of their staff so that they can take advantage of this scheme. It is proposed to hold the course from October 5 to 10 next. Lectures will be held in London. Details from the Secretary, SPAB, 55, Great Ormond-street, WC1.

SIR BANISTER FLETCHER

THE death took place in London on August 17 of Sir Banister Fletcher, P-PRIBA. A notice will appear in our next issue.

THE MODEL BY-LAWS

THE MINISTRY OF HOUSING and Local Government has issued local authorities with a new impression of the model building by-laws. This is substantially a reprint of the 1952 edition, but to cut out wasteful work involving modifications to the text, six seldom-used by-laws, relating to elevation of sites and factory chimneys, have been relegated to an appendix.

At the same time opportunity has been taken to incorporate in the model the new British Standard on Fire Tests on Building Materials and Structures and otherwise to vary the text in a few particulars. By-laws already made, or already drafted and agreed on the basis of the 1952 edition, need not be revoked or withdrawn, but when in due course fresh copies have to be printed, local authorities should remake their by-laws on the basis of the latest model then current.

In an accompanying circular it is pointed out that the need for new local by-laws is urgent, and the Minister trusts that the issue of this fresh impression of the model will enable many local authorities who have not yet submitted drafts to do so within the next month to ensure that their by-laws are confirmed before December 31, when all by-laws based on the 1937 model will expire. At the same time local authorities are reminded that it is of great importance that the building law should not vary from place to place, and amendments of, or additions to, the model will therefore always require justification by reference to genuinely special local needs.

COMING EVENTS

TUESDAY, AUGUST 25

RIBA.—Travelling exhibition, "Home and Surroundings." Public library, Heywood, Lancs. Continuing until September 10.

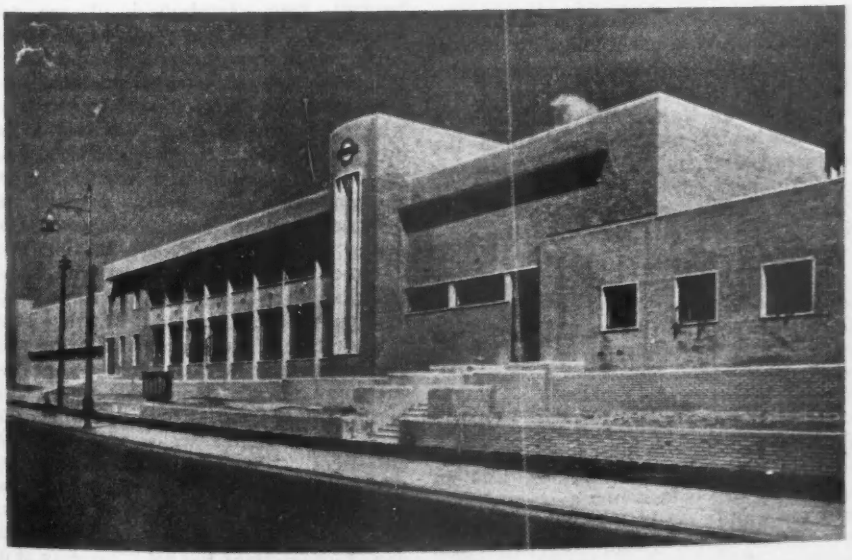
THURSDAY, AUGUST 27

LEICESTER GALLERIES.—Exhibition of work of "Artists of Fame and Promise." Leicester Galleries, Green-street, Leicester-square, WC2. 10 a.m. to 5.30 p.m. (until September 23).

FRIDAY, AUGUST 28

INTERNATIONAL FEDERATION OF SURVEYORS.—Eighth International Congress of Surveyors. The Sorbonne, Paris. Continuing until September 6.

"I was caught in the strike, and now I try to forget I was a FRIBA!"



NEW LONDON TRANSPORT GARAGE, ROMFORD. A general view of the latest garage to be completed under London Transport's post-war programme, at North-street, Romford, which was opened on August 12. The new building provides accommodation for the parking and maintenance of 115 buses, and incorporates a block containing offices, canteen and recreation room. It is of steel-frame construction with brick facings, the greater part being taken up by the parking area, which measures some 285 ft. by 120 ft. under a single-span steel truss and asbestos-cement roof. The architect was Mr. Thomas Bilbow, FRIBA, architect to the Executive, in conjunction with Messrs. C. S. Boughton, LRIBA, E. A. Taber, ARIBA, AMTPI, and S. Hawkins, ARIBA, assistant architects. The structural engineer was Mr. A. V. Bond, AMIStructE, and the heating and ventilating engineers Messrs. H. Carter, AMInstCE, MIStructE, and J. H. F. Read, BSc. The main contractors were F. Troy and Co., Ltd., and the contractors for the structural steel work were the Cargo Fleet Iron Co., Ltd.

RIBA PRESIDENTIAL PORTRAIT

THE presidential portrait of Mr. Howard Robertson, ARA, will be painted for the RIBA by Mr. Rodrigo Moynihan, ARA.

PROFESSIONAL ANNOUNCEMENTS

PROFESSOR A. E. RICHARDSON, RA, and MR. E. A. S. HOUFE, FRIBA, have removed to 24, Queen Anne-street, London, W1. (Tel.: Museum 8792-3-4.)

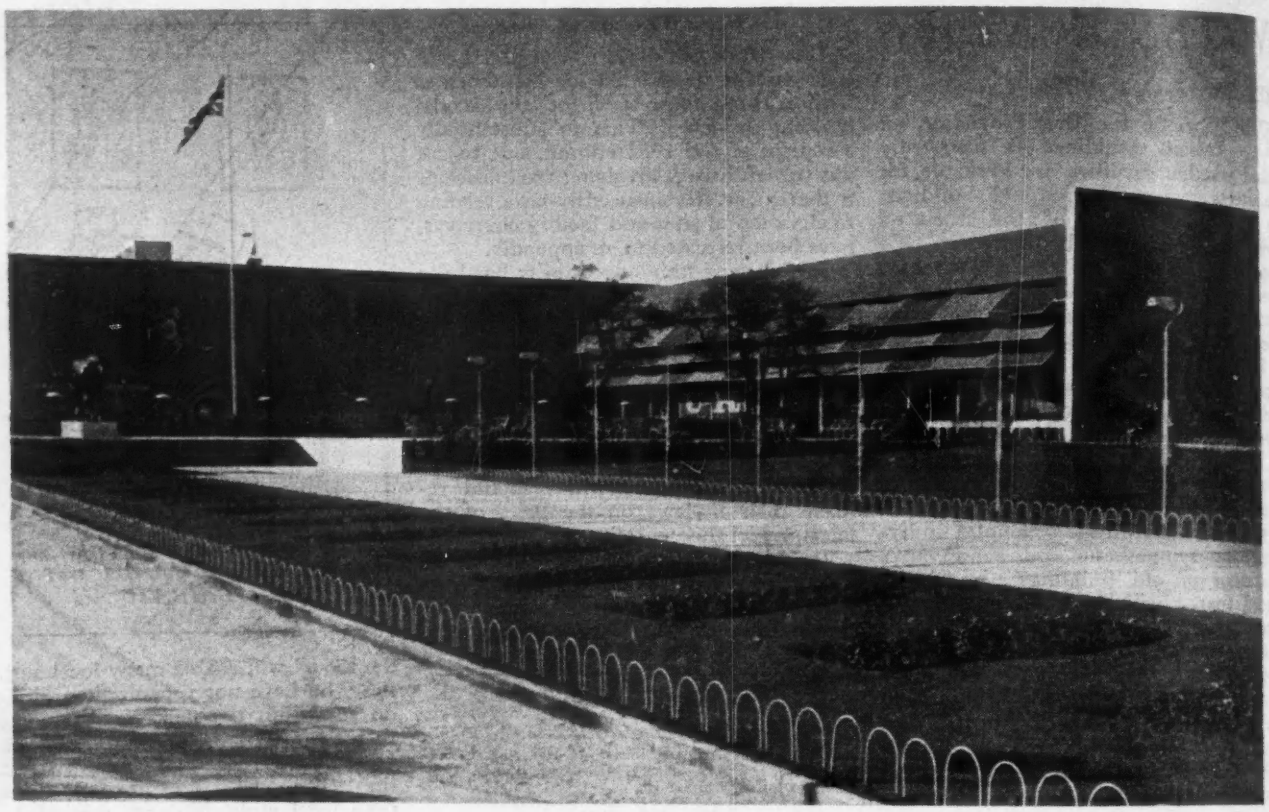
MESSRS. J. R. WETHERELL AND LAMB, chartered architects and surveyors of Newcastle upon Tyne, 1, and Hutton Rudby, Yorks, have informed us that on August 18 they opened main offices at Darlington to which a gradual transfer will be made from the present branch office at Hutton Rudby. The address of the Darlington offices is: 42, Victoria-road. (Tel.: Darlington 66610.)

MR. ROBERT J. COLE, LRIBA, lately with Mr. G. A. Jellicoe, FRIBA, MTPI, has commenced practice at 21, High-st., Camberley, Surrey, and will be pleased to receive trade catalogues.

FROM "THE BUILDER" OF 1853

Saturday, August 20, 1853

TO ARCHITECTS' ASSISTANTS.—Wanted, by an architect in Dublin, a general assistant, who can prepare drawings, make out estimates, and measure artificers' works. A young gentleman who has served part of his time to the profession would be liberally dealt with as to a three years' engagement with advertiser, the practice of whose office is extensive—the city and country parts of Ireland, and embraces not alone that of architects' office business, but also the conducting of the various business connected with railway and public works, the survey of house and landed property, etc. Board and residence of the most respectable character can be had in the vicinity of Advertiser's Office, for 25*l* per annum



UNITED KINGDOM PAVILION. Designed by Misha Black and Alexander Gibson.

Central African Rhodes Centenary Exhibition

By C. G. REEDON RODWAY, FRSA

IN this year of 1953 there have been three major events of great importance to Central Africa : the Coronation of Queen Elizabeth II ; the deciding by referendum of the people to federate the three territories of Southern Rhodesia, Northern Rhodesia and Nyasaland ; and the exhibition to celebrate the centenary of the founder of the two Rhodesias, Cecil Rhodes, now drawing to a close at Bulawayo, Southern Rhodesia. Here, eighteen countries have combined under the two host Governments to present to the world an exhibition which has a standard which must astonish both the overseas visitor and the inhabitant of this vast continent. In the days of its early inception, there were many sceptics and those who were firmly convinced that the most that could be expected would be something comparable with a large agricultural show. As the buildings grew and Europeans and Africans alike toiled and sweated and the exhibition began to take shape, the critics were confounded, the dubious began to enthuse. At last, when May 30, the opening day, dawned, it was apparent that here, on a larger site than that of the South Bank Exhibition, was an exhibition which in contemporary design and magnitude could hold its own with any other presentation of exhibition technique in the world. And this despite the difficulties associated with an unusually long rainy season which delayed work on some of the pavilions, communications in countries which are still largely in the pioneering stages, and the comparative difficulties of securing enough contractors with sufficient past experience of the specialised technique of exhibition work. The result is one which cannot but impress all with the tremendous potential of this vast tract of land.

Copyright: Rhodes Centenary Exhibition.

Statue of Cecil Rhodes in the UK Pavilion.

The largest Government pavilions are those of the two Rhodesias, most fittingly appropriate of their federation, and that of the Union of South Africa. The former dominates the skyline with its massive dome which houses a giant baobab tree, symbolical of the two territories. This was constructed of steelwork, wood framing and fibrous plaster, the extremely realistic effect being completed by the addition of a copper finish which has caused many a visitor to ask how such a huge tree was removed from its natural setting and installed in its present site. The entire pavilion was designed and its erection supervised by Philip Bawcombe, FRSA, an industrial designer from Johannesburg who was at one time a set-designer in the Lime Grove studios of the Gaumont British Picture Corporation. He was assisted by his wife, Pat Bawcombe, who designed and painted the huge murals depicting events in the history of the two Rhodesias which line the curved upper walls over the main entrances. The pavilion is divided into two equal sections separated by large glass screens bearing the crests of towns and cities of the two countries. On either side each Government has told the story of its main theme, Progress, in a series of bays ranging from tourist development to the activities of its defence organisations. Lighting plays an intrinsic part in the interior décor. It is interesting to note that the steelwork for the huge dome was prefabricated in the Middlesbrough workshops of Patchetts, Ltd., shipped to Africa and erected by a team combining European and African native workmen. The main contractors were Triangle Displays, Ltd., of Johannesburg. The result has been something which the designer, the contractor and the two

Governments may feel justly proud to have displayed to the Queen Mother and Princess Margaret during their visit to the Exhibition on July 3 and 4.

Another outstanding pavilion was that of the Union of South Africa, which has earned unstinting praise. The erection of the building itself was the work of the Public Works Department. Ernest Ullman, a South African industrial designer, was responsible for the entire interior décor, which is of a contemporary style.

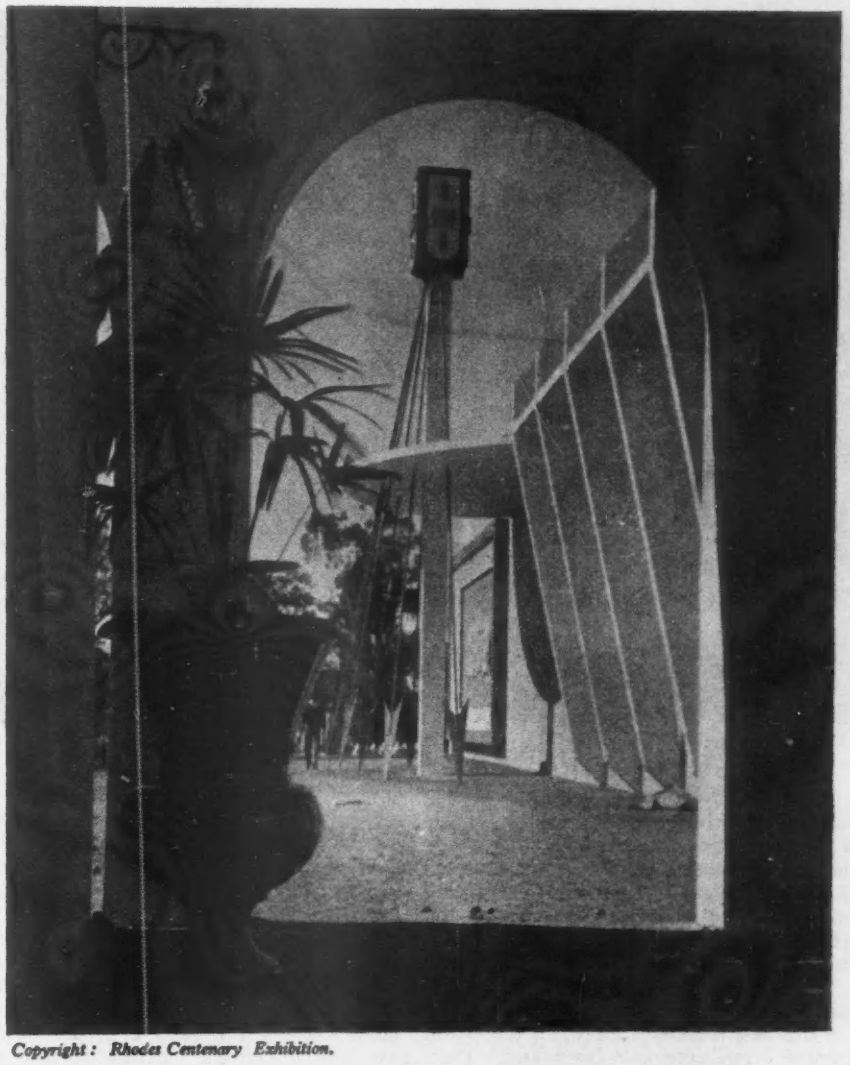
On passing through entrance doors carried out in Dutch Rococo style, one enters a spacious foyer and is confronted with a magnificent array of tropical plants flanked by a large colourful mural, ceiling high, depicting major events in the history of the Union. On the left-hand side of the foyer, opposite the mural, is a glass panel, reaching from floor to ceiling, showing the flags of the four provinces, describing the history of each of the latter from the days of early settlement to the Union. This is lit from behind. Tropical flowers form the base and line this wall, being continued into the hall leading off from the foyer, where in this section, designated "Our Land," the visitor is confronted by nine enormous photographs showing various South African scenes. The entire walls and ceiling are in light blue, with a rubber-tiled floor in a slightly darker shade. Here again, ample attention has been given to the floral aspect. The styling here is particularly clean and contemporary, especially that of the furniture by Ernest Ullman.

Leading off from this is the transport section, in which every phase of development, from the early days to modern times, is told by means of perfectly constructed scale models. An interesting architectural feature is that of the square pillars bound completely with white rope and surmounted by a large soffit of egg-crate lighting. Colour plays a big part in the section embracing science, history, the steel industry and the development of "man" in Africa. In the centre of the pavilion is an open patio with a fountain.

A notable feature of the pavilion is the manner in which the Union of South Africa tells its story to the visiting public with the minimum of caption and annotation. In many cases the photographs have little but one main caption and others none at all, yet one leaves the pavilion with the firm feeling that the Union has perfected the technique of putting over factual information, and the story of its progress and development, better than most of the other exhibitors. This is modern exhibition technique at its best.

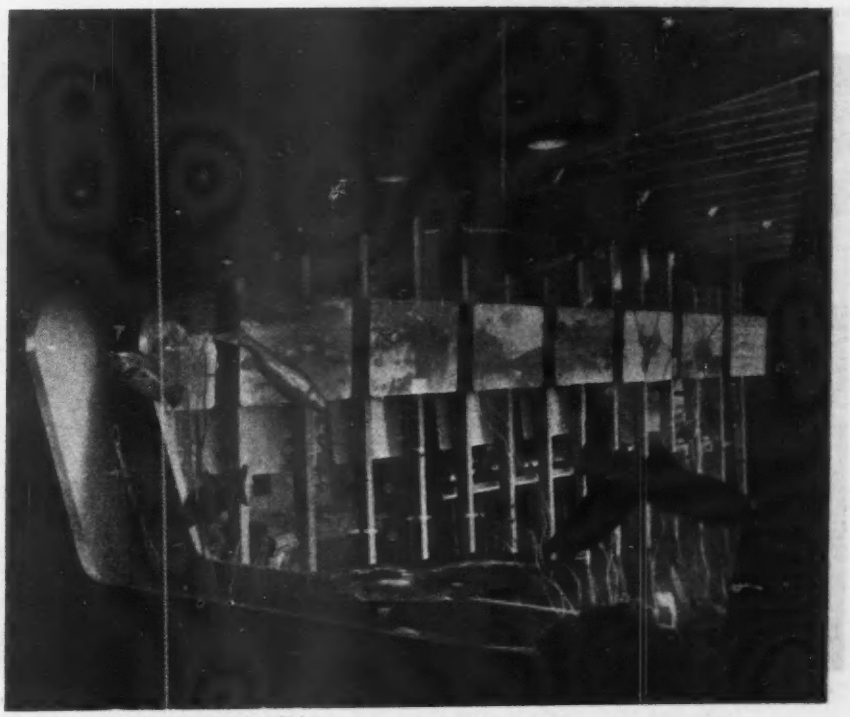
UNITED KINGDOM PAVILION

The exterior of this pavilion is simple, being of the inspan shed type. The open walls have been hung with long lattice blinds on one side, the opposite wall—the front—being decorated at the upper half by three lines of canvas blinds in alternate shades of rust and orange, the lower half being quite open—this is something of a disadvantage, as Bulawayo at this time of the year is cold, and very windy at times. To illustrate this more

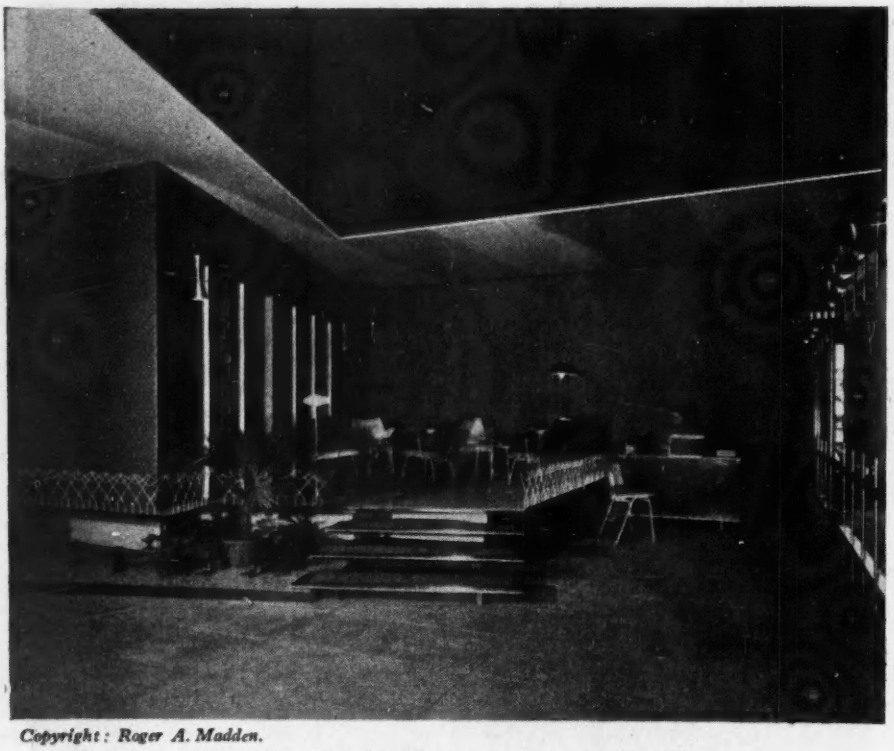


Copyright: Rhodes Centenary Exhibition.

THE MOSAMBIQUE PAVILION, seen from the Portuguese restaurant. Below: Section in SOUTH AFRICAN PAVILION, dealing with Science and the Arts.



Copyright: Rhodes Centenary Exhibition.



Copyright: Roger A. Madden.

Reception hall of Schlesinger Organisation Pavilion.

fully a disturbing feature to the visitor is the loud noise created by the winds rattling the lattice blinds. One wonders if the designers in England were acting under a false impression regarding the weather conditions of Central Africa at this time of the year.

A large wall, the height of the entire building, lies at right angles to the pavilion. On this is a colourful model of the Royal Cypher. An extensive lawn and terrace completes the external view. Visitors may rest in chairs, and there is a large statue of a stallion by John Skeaping. The siting of this pavilion was a fortunate one for it occupies a dominant position on the grounds. Entering the pavilion one is confronted by a bronze statue of Cecil Rhodes. The technique of interior display and design are vastly different from that of any other pavilion, most of the exhibits being arranged within tubular framing. Ample use is made of the now popular display medium consisting of large perforated cork sheets to which photographs, caption panels, etc., are affixed by pegs of varying lengths to give the desired angle to the material displayed. Various phases of education, development, medicine, history, commerce, industry, agriculture, etc., are covered within this pavilion.

Copyright: State Information Office, Union of South Africa.

SOUTH AFRICAN PAVILION: Housing and Welfare Section.

The designers (Misha Black and Alexander Gibson, assisted by John Diamond and Frank Briggs, and working in association with Ayers, Wilson and Parker, of Bulawayo) have made no attempt to mask the bareness of the inspan sheds. Spatial division is effected by means of large colourful lengths of materials hung from the ceiling and reaching to the floor. There are some fine examples of contemporary furniture.

COURT OF RHODES

As the Exhibition commemorates the founder, due attention must be paid to the pavilion of the Court of Rhodes, which is given over mainly to pictorial presentation of the life of Cecil Rhodes from his early days at Bishop's Stortford to the historical events terminating in his death and burial in his beloved Rhodesia. The tone of the design is dignified and plain and in keeping with the significance of the centenary. There are some interesting relics and a number of Cecil Rhodes' personal possessions on display.

In the Court of Cities, adjoining the Rhodesias Pavilion, Nyasaland—third partner in the impending federation of the three territories—has a stand designed by Martin Morris, the Public Relations Officer. Apart from Nyasaland and the Zanzibar exhibit, carried out in eastern style, the rest of the hall is given over to stands bearing the names of towns and cities in the Rhodesias. Of these the Livingstone Municipality stand aroused considerable interest. Designed in the contemporary style, the interior was mostly constructed of polished indigenous hardwood. The City of Salisbury stand was designed by the city architect's department and was unusual in its treatment. Some first-rate working models of Salisbury's amenities complete the picture. Umtali relied almost entirely upon a huge circular sunken model of the town and its environs, set deep into the ground with brick surround to achieve their effect, the remainder of the stand having little but some landscape pictures to add interest. Lusaka, capital of Northern Rhodesia, tells the story of its progress and development in a neat little stand designed by Philip Bawcombe, FRSA.

THE COPPER PAVILION

Northern Rhodesia's wealth lies in her copper industry, the value of her mineral output in 1952 being £79,254,907. It is not surprising, therefore, that one of the most lavish buildings is that of the Copper Pavilion, the exterior walls being carried out in light blue, and the entire face being decorated with a unique design of large copper crosses on either side of the entrance doors, bearing also the word "Copper." This and the crosses were fashioned from that material itself, and the latter are fixed to wires running horizontally and vertically across the building. The porch consists of a low soffit supported by vertical copper columns leading from the exit to the small section devoted to the Broken Hill mine. Here, the entrance door has an architrave formed by sections of zinc on which are small paterae. Along the base are large lead

(*Concluded on page 285.*)

A view from Ebury-square looking west.

FLATS ON THE GROSVENOR ESTATE, WESTMINSTER

Architects
T. P. BENNETT & SON

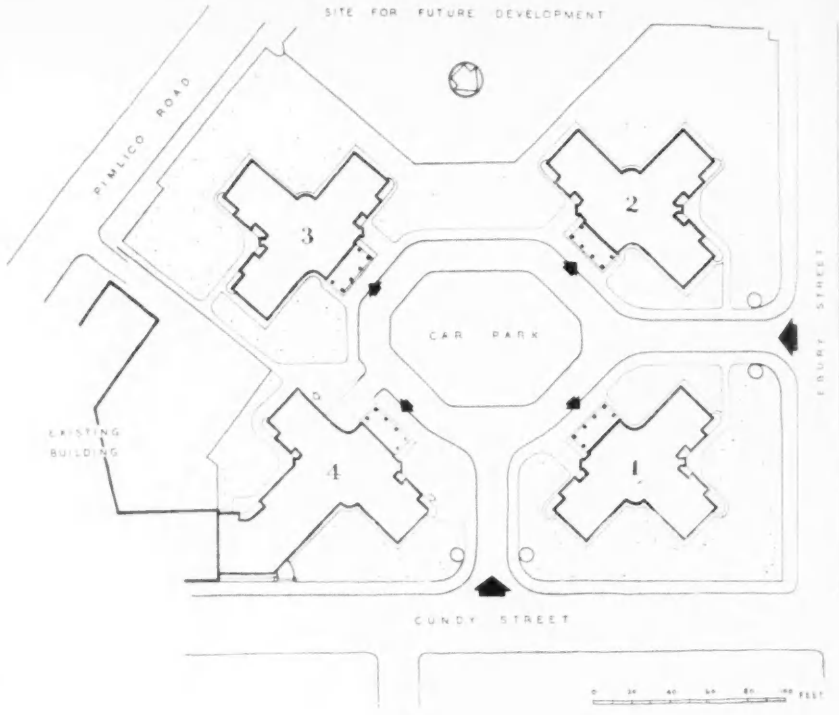
Consulting Architect
THE LATE GILBERT P. SCOTT, ARIBA, FRICS

Quantity Surveyors
GARDINER & THEOBALD

Builders
TAYLOR WOODROW CONSTRUCTION, LTD.

THIS scheme of development was carried out for the late Duke of Westminster on a part of the Grosvenor Estate. The planning problem involved the redevelopment with four blocks at a high density of a roughly triangular site. "Point" block planning to a limited height (70 ft.) has been used to give a very light ground cover and an impression of space and perspective, and, in addition, a diversity of views from within the flats not usually obtainable on restricted sites of this density.

The site was formerly occupied by small houses with shops on Ebury-street, most of which had been cleared by bomb damage. The scheme consists of four blocks of ground and six upper storeys,



Layout plan.

felt to be the greatest height possible having regard to the scale of the area.

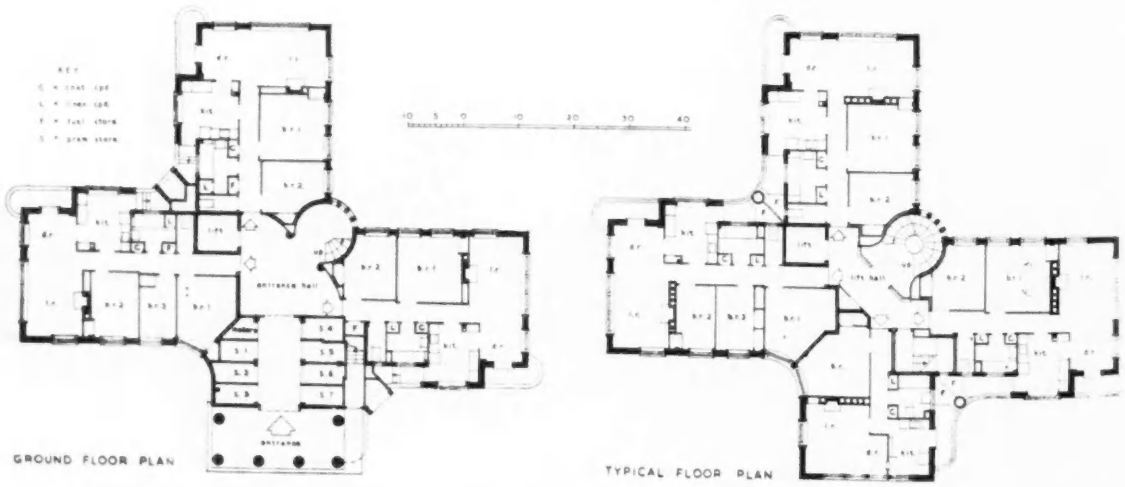
There are 32 three-bedroom, 52 two-bedroom and 25 one-bedroom flats (109 flats in all).

Three blocks are identical, the fourth is modified to link up to an existing building on the west side of Ebury-square and so provide a satisfactory architectural treatment of that side of the square. The layout complies with the daylighting code, and is up to the maximum density permitted by the town planning authority. In all four of the blocks, each wing is taken up by a complete flat, which thus has excellent cross ventilation, good isolation from noise and living-rooms (at the ends of the wings) with light on three sides. The central area of the site is laid out as a car park, the blocks themselves being set in lawns separated from the public street by low walls.

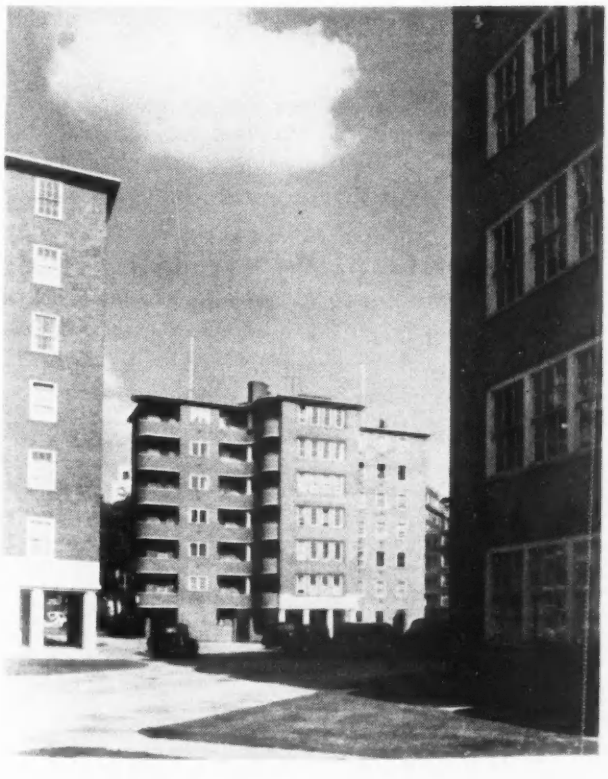
One block contains a porter's office and flat, a small communal laundry, baggage store, and community room which, with its small kitchen and separate lavatories, can be hired by tenants for special functions.

It was specially requested that the elevational treatment should harmonise with the eighteenth-century buildings on the other side of Ebury-street.

Construction.—All buildings have steel frames on mass concrete foundation, with hollow tile or solid concrete floors and staircases. External walls are 13½-in. brick faced with hand-made Buckinghamshire bricks. Roofs are covered in asphalt and have fibreboard insulation. Internal partitions are hollow breeze block; partitions in flats are built on felt; partitions between flats and public parts of the build-



View from Cundy-street entrance looking south-west.



View into courtyard looking east.

ing are of two skins of 3-in. blocks with an air space between, built on and surrounded by ½-in. fibreboard pads for sound insulation. Central heating flue is lined in Fosalsil and is self-supporting but restrained at each floor level.

Basement boiler house is of waterproof concrete with 6-in. steel water bars fitted into specially treated construction joints.

Windows are timber double hung sash to all living-rooms and bedrooms, timber casement to kitchens and steel casement to bathrooms and w.c.'s. All dressings are natural Portland stone.

Services.—Each block is served by an automatic lift. Central heating to all flats comes from a central boiler house and is fed by low-pressure hot-water sectional boilers burning solid fuel with underfeed stokers. Gas multipoint heaters in each flat provide hot water to

FLATS ON THE GROSVENOR ESTATE, WESTMINSTER

Detail of staircase.

all the fittings in each flat. Electrical rising mains off the lift halls feed meter cupboards on alternative floors (accessible from the hall from which the supply to the flat is taken) to a small distribution box in the hall. All socket outlets are on the ring main system except for the cooker control.

A television and wireless aerial system is provided which has outlets in each living-room connected to screened communal aerials on each block. Separate cold-water storage tanks are located in each block.

Finishes.—Floors: Main entrance lobby is ceramic tile. Main entrance hall and first flight of stairs, terrazzo. Remaining stairs, granolithic; lift halls $\frac{3}{16}$-in. Semastic tiles. Flats, hardwood block except kitchens, bathrooms and w.c.'s $\frac{1}{8}$-in. Semastic tile.

Walls and ceilings: Plaster distempered in flats except kitchen, bathroom and w.c., which are tiled around fittings and gloss paint. All public parts of building painted gloss paint except secondary stair ("Exelaero"). Laundry walls—cement glaze.

Cupboards are provided in all bedrooms. Surrounds to the glazed screens on the main staircase are hardwood polished natural colour. Handrails, polished hardwood on steel balustrade. Entrance columns, glazed faience. Dust chute columns, glazed tile.

As a condition of licence the rents agreed by the Westminster City Council were £235, £285 and £350 per annum, exclusive of rates, for one-, two- and three-bedroom flats. The flats have, in fact, been let at less than these amounts. Following is a list of the sub-contractors:—

Portland stone, The Bath and Portland Stone Co., Ltd.; faience tiling and ceramic tiling, Carter and Co., Ltd.; floors, Caxton Floors, Ltd.; steel windows, Crittall Manufacturing Co.; decorations, C. and T. Painters, Ltd.; steelwork, Dorman Long and Co., Ltd.; asphalt roof and balcony floors, Durable Asphalt Co., Ltd.;

Lifts, The Express Lift Co.; interior fire surrounds back and base, W. N. Froy and Sons; facing bricks, Henry J. Greenham (1929), Ltd.; wood block and Semastic floors, Hollis Bros. and Co., Ltd.; kitchen and bedroom cupboards, Peerless Built-in-Furniture, Ltd.; heating engineers, Rosser and Russell, Ltd.; sanitary goods, Stitson Sanitary Fittings, Ltd.; electricians, Tanjon (Newcastle), Ltd.; glazement to walls, Robb's Cement and Enamel Finishes, Ltd.

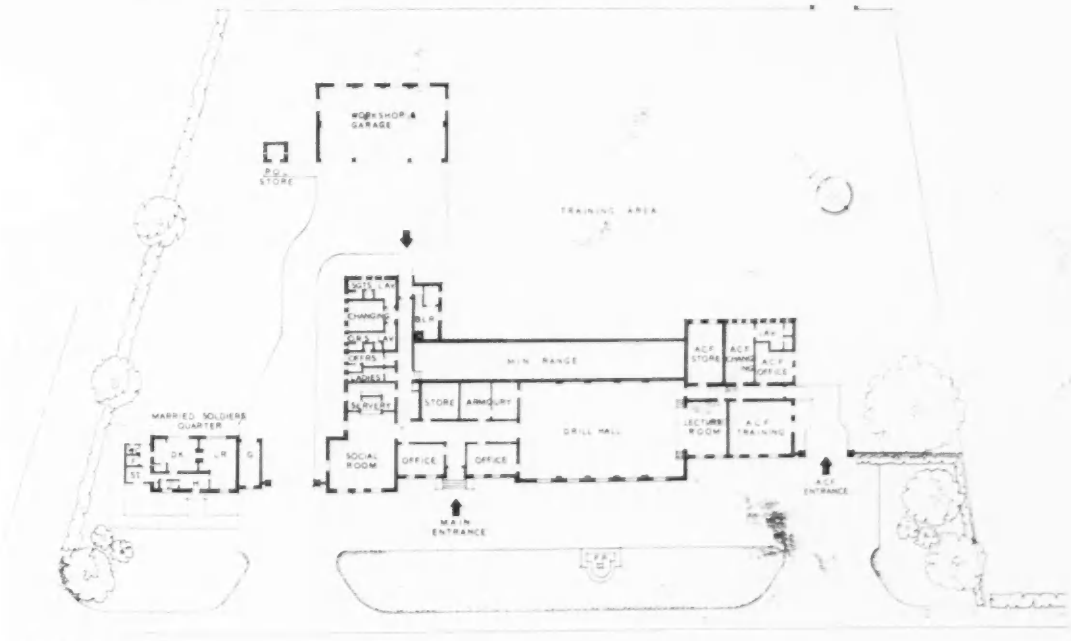
View from the north. Below : Plan.

Territorial Army Centre, Minehead

Architects
DONATI AND TORRENS, AA.RIBA

Builders
S. W. FOSTER, LTD.

Clerk of Works
W. J. COLES



Drill hall.

THIS TA centre was designed within the very rigid yardstick scale laid down by the War Office. It accommodates a detachment of the Somerset Light Infantry (TA) and a platoon of the Somerset Army Cadet Force. Adjoining the centre is a permanent staff instructor's quarters. To be in keeping with the adjacent school, single-storey construction was used, and an endeavour was made to break away from the barrack atmosphere usually associated with drill halls. While fully meeting the training requirements, the building readily lends itself to Service social functions. Full advantage was taken of site contours and this allowed the lecture room to be used as a stage in conjunction with the drill hall. The cadet force accommodation is self-contained, but allows for the joint use of the drill hall. All ranks have changing rooms and shower baths.

The main walls are of 11 in. brickwork with Taunton golden-brown facings, and door and window surrounds of Doulting reconstructed stone. The roofs are covered with sandfaced Reading tiles which blend in well with the red sandstone of the West Somerset countryside.

The drill hall is finished in fair-faced brick, and has a maple strip floor and Anderson's suspended ceiling. The main entrance corridors have light and dark Purbeck reconstructed stone floors. Thermoplastic tiles are used in the social and lecture rooms. Following is a list of sub-contractors and suppliers :—

Structural steelwork, Gardiner, Sons and Co., Ltd., Bristol; facing bricks, Thos. S. Penny, Ltd., Taunton; reconstructed stone, Wharf Lane Concrete, Co., Ltd., Ilminster; roofing tiles, S. and E. Collier, Ltd., Reading; roofing, William Thomas and Co., Ltd., Wellington; maple flooring, Semastic tiles, Horsley, Smith and Co. (Hayes), Ltd., Hayes; Anderson's suspended ceiling, Hall and Co., Ltd., Bristol; asphalting, La Brea Asphalte Co., Ltd., Bristol; heating, Barrett and Wright, Ltd., Exeter; electrical work, L. A. Evans, Ltd., Weston-super-Mare; steel doors, Woodrow Metals, Ltd., Plymouth; flush doors, The Adamite Co., Ltd.; steel casements, Crittalls Metal Windows, Bristol.

Social room.

TA CENTRE, MINEHEAD

View from Deanery-street.

Dorchester Hotel Extension

Architect
W. A. S. LLOYD, MA, FRIBA
(W. CURTIS GREEN, RA, SON & LLOYD)

Structural Engineers
CONSIDÈRE CONSTRUCTIONS, LTD.

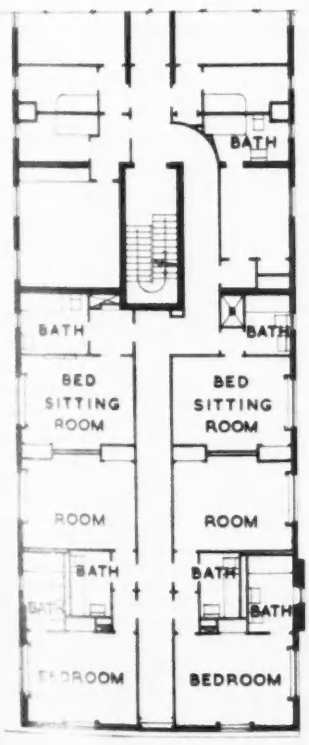
Decorations
OLIVER MESSEL

Builders
SIR ROBERT McALPINE & SONS, LTD.

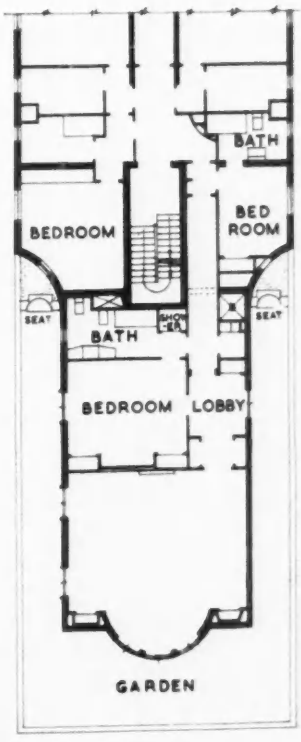
THE Dorchester Hotel in Park-lane, London, was built in 1930, and has recently been extended by the provision of further bedrooms on one of the wings facing Deanery-street. When the hotel was designed this portion comprised a garage in the basement and a ground-floor car park. No extensions were then contemplated above the level of the pavement. In 1938, however, two banqueting rooms were built above ground-floor level and a third room constructed as a mezzanine in the garage. The present alteration required one of the wings to be extended outwards and built up to the full height of the hotel (about 90 ft. above the level of the pavement), and it was necessary to provide the supports for the additional six floors without preventing the use of the existing rooms below, or interfering with the use of the garage.

The extension is about 60 ft. long from the end of the existing wing and is 40 ft. wide. The floors had to span this width without intermediate support. Therefore the whole of the additional six floors are carried on two main columns at the eastern end with a support on the wall of the existing wing.

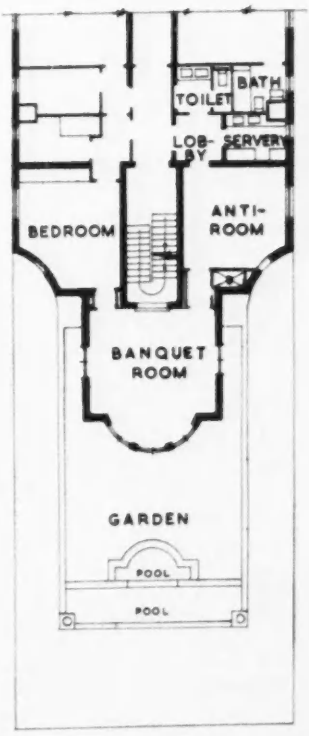
The construction of the lowest five new floors consists of cross beams 2 ft. deep spanning 40 ft., and connected



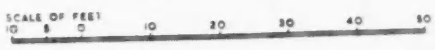
SECOND FLOOR



SEVENTH FLOOR



EIGHTH FLOOR



by a solid reinforced concrete slab 4 in. thick. The ends of the cross-beams are carried on the side walls of the extension. These walls comprise a reinforced concrete core 5 in. thick with 2 in. of cork on the inner face and terrazzo slabs 2 in. thick on the outer face. The new side walls act as girders which span from the end wall of the existing wing for a distance of about 42 ft. to the main columns, and cantilever beyond them about 18 ft. to the end wall of the extension. The side walls were built two storeys high and were designed in the first stage to carry two floors of the extension before the supports were removed. As each floor was added, and the height of the wall increased, the tensile stress in the main bottom reinforcement also increased progressively but to a diminishing extent. In these side walls the presence of large window openings caused concentrations of high shear stresses.

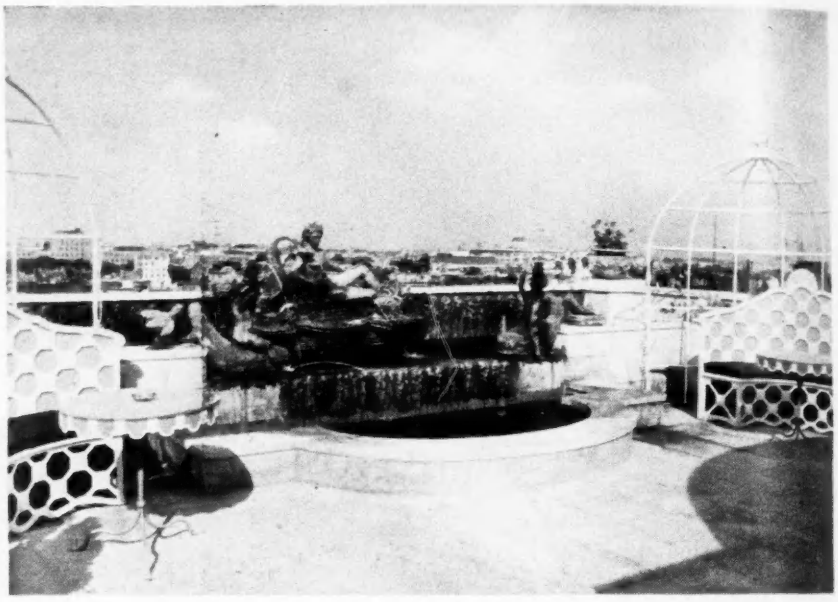
The new side walls commenced at second-floor level, which was the level of the roof of the existing building, and provision was made to avoid the load from these walls bearing on the existing work by forming a space between the roof and the bottom of the wall which was subsequently filled with compressible expansion-joint material.

The existing roof at second-floor level was designed for normal roof loads and the stresses, when calculated for the floor-load plus the weight of partitions, proved to be somewhat excessive. Hangers were introduced on the line of the new corridor partition walls, and these were extended up to the new third-floor cross beams. These hangers were stressed by hydraulic jacks and the nuts then tightened. In this way an upward deflection of the existing second-floor beams was obtained and the extra load on the second floor is shared between that floor and the new third floor which was designed accordingly.

At seventh-floor level the walls are set back on three sides of the extension, forming a penthouse of two storeys. The walls are of similar construction to those below and are carried on cross-beams at seventh-floor level. The penthouses are to be used as residences and are provided with a roof-garden having two fish-pools.

The penthouse suite, which has been decorated and furnished to the plan and design of Mr. Oliver Messel, consists of drawing-room, double bedroom and bathroom and a guest bedroom and bathroom. A garden motif has been chosen for the large drawing-room. The white-painted walls are decorated with garden scenes framed in white lattice work constructed from plaster on steel wire. The doors themselves have been painted with a floral design. The carpet, specially woven for this room, has a white swan on a blue oval background as its main theme.

Yellow grosgrain, or corded silk, has been used to line the walls of the main bedroom. The beds are recessed into an alcove on which taffeta with an oakleaf design, interspersed with pink roses on a white ground is used as a wall covering. The main bathroom is of white porcelain and mirrors. The bath, wash-basin and pedestal are all white with fittings and towel rail of dull gold plate. The water inlet for the bath is shaped like a dolphin. There is a separate shower with glass surround.



Roof garden and drawing-room designed by Oliver Messel.

Mr. Messel has also designed a banqueting room for parties of 12 to 16 guests, which is set in a miniature garden with statues and fountains that play into an ornamental pool. The fountain and pool which are the centre-piece of the garden are decorated with figures of Leda and the Swan on a shell formation. From a small model designed and conceived by Mr. Messel, the figures have been sculpted in cement by M. W. Goor, a French artist. Following is a list of the sub-contractors engaged on the scheme :—

Plumbing, Den and Hellyer, Sanitation, Ltd.; decorative glass, London Sand Blast Decorative Glass Works, Ltd.; marble work, J. Whitehead and Sons, Ltd., Fenning and Co., Ltd.; balustrades, etc., Hurst Franklin and Co., Ltd.; heating and h.w. installation, Troughton and Young (Heating), Ltd.; precast weir stones (roof garden), G. Jackson and Sons, Ltd.; Portland stone paving, South Western Stone Co., Ltd.; asphalt, Ragusa Asphalte Paving Co., Ltd.; joinery and plastering, Hamptons and Sons, Ltd.; glazing, Faulkner, Greene and Co., Ltd.; metal windows, Henry Hope and Sons, Ltd.; wall and floor tiling, Zanelli (London), Ltd.; scaffolding, Scaffolding (Great Britain), Ltd.; terrazzo, Art Pavements and Decorations, Ltd.; soft furnishings, D. S. Mann and Ronald Fleming, Ltd., Gregory (Bruton St.) and Co., Ltd.; carpets woven by Luforma, Ltd.; bathroom fittings, John Bolding and Sons, Ltd.

DORCHESTER HOTEL EXTENSION